

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Plant Abstract

Element Code: PDLOA04010

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Petalonyx linearis*

COMMON NAME: Longleaf sandpaper plant, Narrow-leaf sandpaper-plant, Narrowleaf sandpaper plant

SYNONYMS:

FAMILY: Loasaceae

AUTHOR, PLACE OF PUBLICATION: Greene, Bull. Calif. Acad. Sci. 1: 188. 1885.

TYPE LOCALITY: East side of Cedros Island, Baja California, Mexico.

TYPE SPECIMEN: HT: CAS. Greene s.n., 1885.

TAXONOMIC UNIQUENESS: Species *linearis* is 1 of 4 species in the genus *Petalonyx* in southwestern North America, including Arizona. The other species in Arizona include *P. nitidus*, *P. parryi*, and *P. thurberi*.

DESCRIPTION: A small, dense, rounded shrub, 30 - 50 cm (12-20 in), with many stiff, erect-ascending brittle and leafy twigs, the younger ones grayish-green; current growth often sparsely branched. Hickman et al. (1993) reports plant measurement of 15-100 cm (6-39 in). Leaves sessile, 1-3(-4) x 0.2-1 cm, those of branches and main axis similar in size; blade linear to narrowly oblong or elliptic; margin entire, occasionally few-toothed. Herbage green, the hairs short, not appressed or retrorse. Racemes to 10(-20) cm [4(-80 in] long, and 1-2 cm wide. Bracts becoming membranous at fruiting time; outer floral bracts 5-11 x 2-7 mm, ovate, cordate (heart-shaped) at the base; margins crenate to entire; apex obtuse. The petals, filaments, style, and stigma are white; anthers cream colored. The calyx lobes are about 1.5 mm. The petals are 2-5.5 mm long, separate, narrowed to a slender claw; stamens 3-7 mm long. Seeds ovoid, brown, 2-4 mm long, tightly enclosed in the dried floral tube. (Hickman et al. 1993; Cristy 1998; Felger 2000).

AIDS TO IDENTIFICATION:

ILLUSTRATIONS: Line drawing (Jaeger, 1969: fig. 320)

Color photo (Moran, in Ricket et al. 1970: Pl. 62)

Line drawing (JRJ, in Felger 2000: p. 348)

Color photos of plant and parts (Debra Valov 2003, 2004, in CalPhotos at http://elib.cs.berkeley.edu/cgi/img_query?)

TOTAL RANGE: Arizona, California, and Mexico (Sonora, Baja California, Islands of Gulf of California).

RANGE WITHIN ARIZONA: Mohave County (south end Black Mts.); southwest Pima County (Puerto Blanca Mts.); Yuma County (Laguna Dam vicinity on the Colorado River; Gila, Kofa and Tinajas Altas Mts.).

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial shrub.

PHENOLOGY: Flowers from (Dec)Mar-Jun.

BIOLOGY:

HABITAT: Canyons, washes, and steep slopes of sand, gravel, or rocks in the Colorado, Mohave, and Sonoran Deserts, and adjoining deserts of Baja California. Also in rocky canyons of the Salton Sink.

ELEVATION: In Arizona, elevation ranges from 142-3,220 ft (43-982 m), based on unpublished records in the HDMS (AGFD, accessed 2002). Per CalFlora (2002), elevation ranges from 0-3,280 ft (0-1000 m).

EXPOSURE: East.

SUBSTRATE: Sand, gravel or rocks; basalt fragments over rhyolite bedrock.

PLANT COMMUNITY: Southeast Mohave Desert, Sonoran Desert. Generally in creosote-bush scrub. Associated species include: *Acacia greggii* (catclaw acacia), *Ambrosia dumosa* (white bursage), *A. illicifolia* (holly-leaf bursage), *Bebbia juncea* (sweetbush), *Bursera microphylla* (Elephant-tree), *Carnegiea gigantea* (Saguaro cactus), *Chilopsis linearis* (desert-willow), *Encelia farinosa* (white brittlebush), *Ephedra aspera* (Aspera Mormon tea), *Eriogonum fasciculatum* (California wild buckwheat), *Fouquieria* (Ocotillo), *Hymenoclea salsola* (white burrow-bush), *Hyptis emoryi* (desert lavender), *Jatropha cuneata* (Physio-nut), *Justica californica* (Chuparosa), *Olneya tesota* (Ironwood tree), *Opuntia acanthocarpa* var. *coloradensis* (Colorado buckhorn cholla), *O. bigelovii* (teddy-bear cactus), *Parkinsonia microphylla* (littleleaf palo verde), *Phoradendron californicum* (California mistletoe), *Stenocereus thurberi* (Organ Pipe cactus), and *Viguiera deltoidea* (triangle goldeneye). (SEINet accessed 2005).

POPULATION HISTORY AND TRENDS: Unknown.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: None
OTHER STATUS: None (USDI, BLM AZ 2005)
[Bureau of Land Management Sensitive (USDI, BLM AZ 2000)]

MANAGEMENT FACTORS:

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS:

LAND MANAGEMENT/OWNERSHIP: BLM – Yuma Field Office; DOD – Barry M. Goldwater Airforce Range; FWS – Kofa National Wildlife Refuge; NPS – Organ Pipe Cactus National Monument.

SOURCES OF FURTHER INFORMATION**REFERENCES:**

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MAJOR KNOWLEDGEABLE INDIVIDUALS:**ADDITIONAL INFORMATION:**

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